



**STATEMENT OF WORK FOR
THE REMEDIAL DESIGN AND REMEDIAL ACTION
AT THE
FETZER SITE
OPERABLE UNIT 3
OF THE
NORTH BRONSON FORMER FACILITIES SITE
BRONSON, BRANCH COUNTY, MICHIGAN**

1. PURPOSE

The purpose of this Statement of Work (SOW) is to set forth requirements for implementation of the remedial action set forth in the Record of Decision (ROD), which was signed by the Regional Administrator of U.S. EPA Region 5 on September 30, 2009 for the former Fetzer Site, Operable Unit 3 (OU3) of the North Bronson Former Facilities Site. The Settling Defendant shall follow the ROD, the SOW, the approved Remedial Design (RD) Work Plan, the approved Remedial Action (RA) Work Plan, U.S. EPA Superfund Remedial Design and Remedial Action Guidance and any additional guidance provided by U.S. EPA in submitting deliverables for designing and implementing the RA at the Fetzer Site.

II. DESCRIPTION OF THE REMEDIAL ACTION/PERFORMANCE STANDARDS

The Settling Defendant shall design and implement the RA to meet the performance standards and specifications set forth in the ROD and this SOW. Performance standards shall include cleanup standards, quality criteria and other substantive requirements criteria or limitations including all Applicable or Relevant and Appropriate Requirements (ARARs) set forth in the ROD, SOW and/or Unilateral Administrative Order.

1. Site Security

Settling Defendant shall install and maintain a fence around work areas as necessary to prevent access and vandalism. Warning signs shall be posted at 200-foot intervals along the fence and at all gates. The warning signs shall be appropriate to the potential risks at the property (i.e., noting that the area is hazardous due to potential physical and chemical hazards). The signs shall also provide a telephone number to call for further information. If fencing is insufficient to provide control of the site, Settling Defendant shall provide a guard(s) to ensure security in work areas.

2. Restrictive Covenants/Deed Restrictions

Within 60 days after approval of the Final Design, Settling Defendant shall execute and record with the Branch County Recorder the restrictive covenants detailed in the Final Design.

3. Excavation and Off-Site Disposal of Waste/Soils

Settling Defendant shall excavate all soil/sludges/waste that contain hazardous substances, pollutants or contaminants at levels that exceed the cleanup standards as determined in the ROD. Lateral

excavation limits are to be based on the extent of contamination, not property boundaries. Should soil contamination extend into residential properties, cleanup standards for any such areas shall be the more conservative of the Michigan Part 201 Residential Direct Contact Criteria and the Michigan Part 201 Soil Criteria Protective of the Groundwater / Surface Water Interface (GSI). If contaminants not previously identified are found during excavation, the cleanup standards shall be the more conservative of the Michigan Part 201 Commercial / Industrial Direct Contact Criteria and the Michigan Part 201 Soil Criteria Protective of the GSI. Excavation shall, at a minimum, extend to a depth of 10 feet, or to the top of the water table. For any areas where sludge or waste products are present, excavation shall extend below the water table to maximize the removal of source material. All excavated material shall be sent to an appropriate and licensed disposal facility, with prior notification to EPA concerning the disposal location.

Settling Defendant shall perform verification sampling as part of the excavation process, consistent with the Michigan Department of Environmental Quality (MDEQ) 2002 "S3TM" Sampling Strategies and Statistics Training Materials. Settling Defendant shall prepare and implement a Quality Assurance Project Plan (QAPP) to ensure that verification sampling data is valid and reliable. If Settling Defendant plans to utilize an existing QAPP, Settling Defendant must verify that the laboratory, Standard Operating Procedures, and other critical elements are still valid.

4. Construction, Installation and Operation of an Air Sparge Treatment / Soil Vapor Extraction

Settling Defendant shall design, install, operate, maintain and monitor an Air Sparge (AS)/ Soil Vapor Extraction (SVE) system to reduce volatile organic contaminant concentrations in groundwater and saturated soils and to reduce residual (post-excavation) concentrations of volatile organic contamination in vadose zone soils. The AS/SVE system shall be designed in such a manner that the system can be converted to a groundwater extraction and treatment system when U.S. EPA determines that the removal efficiency of the AS/SVE system warrants discontinuation of operation.

The AS/SVE and groundwater extraction and treatment systems shall be designed and operated to eliminate the Fetzer Site as a source of groundwater contamination to areas beyond the Fetzer site boundary. The AS/SVE system shall be designed to maximize removal of volatile organic compounds (VOCs) in a manner that can be safely controlled with the SVE removal of contaminated vapors. Settling Defendant shall pump extracted vapors to a treatment system for removal of chemicals. Air must meet established discharge standards prior to release, with discharge standards to be established by the MDEQ.

General conditions for shutdown of the AS/SVE system are identified in the ROD, with details of the AS/SVE shutdown evaluation procedure to be established in the Settling Defendant's Operation, Maintenance and Monitoring (OM&M) Plan, which is subject to U.S. EPA and MDEQ review and U.S. EPA approval. Settling Defendant shall operate the AS/SVE system until U.S. EPA, in consultation with MDEQ, approves or directs Settling Defendant to implement a conversion to a groundwater extraction and treatment system.

Settling Defendant shall design, install, operate, maintain and monitor the groundwater extraction and treatment system at the Fetzer Site. Settling Defendant shall pump extracted groundwater to a

treatment system for removal of chemicals. Extracted water must meet established discharge standards prior to release, with discharge standards to be established by the MDEQ via Settling Defendant's fulfillment of the substantive requirements of the NPDES permit process or the Part 201 groundwater discharge permit process.

The groundwater extraction and treatment system shall operate until groundwater monitoring results consistently demonstrate that groundwater contaminant concentrations at the Fetzer Site no longer pose a threat of causing an exceedance of a residential drinking water standard beyond the Fetzer Site perimeter or an exceedance of GSI criteria at County Drain #30. Settling Defendants shall monitor the performance of the AS/SVE and groundwater extraction and treatment systems on a regular basis. U.S. EPA may require adjustments to the systems as warranted by the performance data collected during operation. Examples of adjustments which U.S. EPA may require are additional groundwater sparge or extraction wells and/or increased pumping rates.

Details of the shutdown evaluation process for the groundwater extraction and treatment system are to be established in the Settling Defendant's OM&M Plan, which is subject to U.S. EPA and MDEQ review and U.S. EPA approval. Final groundwater cleanup standards are to be established in a future Record of Decision for site-wide groundwater. Prior to shutdown, U.S. EPA requires a demonstration that performance standards have been met throughout a contaminated plume. Compliance points for shutdown of the groundwater extraction and treatment system shall be appropriate for the scope of the remedial action. Shutdown monitoring shall include a complete evaluation of the target analyte list (TAL) and target compound list (TCL) parameters and at least eight quarterly monitoring events.

After termination of the operation of the groundwater extraction and treatment system, Settling Defendant shall reactivate the groundwater extraction and treatment system immediately, if any groundwater monitoring indicates that the groundwater performance standards are exceeded at any point of compliance established in the OM&M Plan. Petition for the termination of system operation shall follow the shutdown procedures in the OM&M Plan.

5. Design and Implementation of an OM&M Program for Remedial Action

Settling Defendant shall design and implement an OM&M program to establish standards for operation and maintenance and to evaluate and ensure that the construction and implementation of the Remedial Action comply with approved plans, design documents and performance standards. Settling Defendant shall submit monitoring programs as part of the Remedial Design Work Plan, which shall address the specific components of the remedial action listed below. Each sample shall be analyzed for a list of parameters approved by U.S. EPA during design. Monitoring programs shall be updated, as appropriate and as directed by U.S. EPA, throughout the duration of the project.

Settling Defendant shall design and implement a groundwater and soil gas monitoring program as identified in the RD Work Plan or as required by U.S. EPA. The groundwater monitoring program will be designed to detect changes in groundwater flow and changes in the chemical concentration of contaminants in groundwater and soil gas at and near the site. The monitoring program will also be designed to ensure that implementation of the remedial action does not create or exacerbate vapor intrusion risks in nearby homes. If additional information indicates

that the groundwater and/or soil gas monitoring program is inadequate, U.S. EPA may require additional groundwater monitoring wells and/or soil gas collection locations and the laboratory analysis of additional parameters.

Settling Defendant shall also design and implement a monitoring program to assess the performance of the AS/SVE and groundwater extraction and treatment systems. The monitoring program shall be designed to detect any conditions that may interfere with the proper operation and function of the system. At a minimum, this monitoring program will assess influent and effluent air and groundwater contaminant concentrations, provide documentation of permit compliance, and provide insight on the status of pollution control measures. The monitoring schedule (including sampling procedures, frequencies and analytical parameters) for start-up and initial system operation shall be identified in the Remedial Design. The routine sampling schedule shall be presented in the OM&M Plan and shall be implemented, on approval, once the remedial action is determined to be both operational and functional.

III. SCOPE OF REMEDIAL DESIGN AND REMEDIAL ACTION

The Remedial Design/Remedial Action shall consist of eight tasks. All plans are to be submitted as draft, and are subject to U.S. EPA review and approval. Settling Defendant shall submit revised / modified documents as directed by U.S. EPA and pursuant to the requirements of the Unilateral Administrative Order.

Task 1: RD Work Plan

Task 2: Remedial Design

- A. Preliminary Design
- B. Intermediate Design
- C. Prefinal Design/ Final Design

Task 3: Remedial Action Work Plan

Task 4: Construction and Implementation of Remedial Action

- A. Preconstruction Meeting
- B. Performance of Remedial Action
- C. Prefinal Inspection
- D. Final Inspection
- E. Reports
 - 1. Phase 1 and Phase 2 Construction Reports
 - 2. Completion of Remedial Action Report
 - 3. Completion of Work Report

Task 5: Operations and Maintenance

Task 1: Remedial Design Work Plan

Settling Defendant shall submit a Work Plan which shall document the overall management

strategy for performing the design, construction, operation, maintenance and monitoring of Remedial Actions for U.S. EPA review and approval. The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation and shall include a description of qualifications of key personnel directing the Remedial Design, including contractor personnel. The Work Plan shall also contain a schedule of Remedial Design activities and identify any additional data necessary for the preparation of design documents. Settling Defendant shall submit a Remedial Design Work Plan in accordance with Section V of this SOW.

If any additional data is necessary for preparation of design documents, such data collection may need an approved Field Sampling Plan, QAPP, and Health and Safety Plan (HASP). A HASP should be provided as part of the RD Work Plan if any sort of Site work is to be contemplated (surveying, visual inspections, etc.).

Task 2: Remedial Design

Settling Defendant shall prepare construction plans and specifications to implement the Remedial Actions at the Site as described in the ROD and this SOW. Plans and specifications shall be submitted in accordance with the schedule set forth in Section V below. Subject to approval by U.S. EPA, Settling Defendant may submit more than one set of design submittals reflecting different components of the Remedial Action. All plans and specifications shall be developed in accordance with U.S. EPA's Superfund Remedial Design and Remedial Action Guidance (OSWER Directive No. 9355.O-4A) and shall demonstrate that the Remedial Action shall meet all objectives of the ROD, the CD and this SOW, including all Performance Standards. Settling Defendant shall meet regularly with U.S. EPA to discuss design issues. Design should include Phase 1, addressing soil excavations and the AS/SVE systems and Phase 2, addressing the groundwater pump and treat system.

A. Preliminary Design

Settling Defendant shall submit the Preliminary Design when the design effort is approximately 30 % complete. The Preliminary Design submittal shall include or discuss, at a minimum, the following:

- Preliminary plans, drawings, and sketches, including design calculations;
- Results of treatability studies and additional field sampling;
- Design assumptions and parameters, including design restrictions, process performance criteria, appropriate unit processes for the treatment train, and expected removal or treatment efficiencies for both the process and waste (concentration and volume);
- Proposed cleanup verification methods, including compliance with Applicable or Relevant and Appropriate Requirements (ARARs);

- Outline of required specifications;
- Proposed siting/locations of processes/construction activity;
- Preliminary OM&M requirements (until system is demonstrated to be operational and function and long-term OM&M plan is in place);
- Expected long-term OM&M requirements (outline);
- Real estate, easement, and permit requirements; and
- Preliminary construction schedule, including contracting strategy.

B. Intermediate Design

Settling Defendant shall submit the Intermediate Design when the design effort is approximately 60 % complete. The Intermediate Design shall fully address all comments made to the preceding design submittal. The Intermediate Design submittal shall include those elements listed for the Preliminary Design, as well as, the following:

- Draft QAPP/ Draft HASP Draft Field Sampling Plan;
- Draft Construction Quality Assurance Plan; and
- Draft Contingency Plan.

C. Prefinal and Final Designs

Settling Defendant shall submit the Prefinal Design when the design effort is approximately 95% complete and shall submit the Final Design when the design effort is 100% complete. The Prefinal Design shall fully address all comments made to the preceding design submittal. The Final Design shall fully address all comments made to the Prefinal Design and shall include reproducible drawings and specifications suitable for bid advertisement. The Prefinal Design shall serve as the Final Design if U.S. EPA has no further comments and issues the notice to proceed.

The Prefinal and Final Design submittals shall include those elements listed for the Preliminary Design, as well as, the following:

- Final QAPP/ Final HASP/ Final Field Sampling Plan;
- Final Construction Quality Assurance Plan;
- Draft OM&M Plan;
- Capital and Operation and Maintenance Cost Estimate. This cost estimate shall

refine the FS cost estimate to reflect the detail presented in the Final Design;

- Final Project Schedule for the construction and implementation of the Remedial Action which identifies timing for initiation and completion of all critical path tasks. The final project schedule submitted as part of the Final Design shall include specific dates for completion of the project and major milestones.

Task 3: Remedial Action Work Plan

The Remedial Action Work Plan shall include a detailed description of the remediation and construction activities. The RA Work Plan shall include a project schedule for each major activity and submission of deliverables generated during the Remedial Action. Settling Defendant shall submit Remedial Action Work Plans in accordance with Section V of this SOW. The Work Plan shall include plans for Phase 1 and Phase 2.

Task 4: Construction and Completion of Remedial Action

Settling Defendant shall implement the Remedial Action as detailed in the approved Final Design. The following activities shall be completed in constructing the Remedial Action.

A. Preconstruction inspection and meeting

Settling Defendant shall participate with the U.S. EPA and the State in preconstruction inspections and meetings to:

- a. Review methods for documenting and reporting inspection data;
- b. Review methods for distributing and storing documents and reports;
- c. Review work area security and safety protocol;
- d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and,
- e. Conduct a Site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes shall be transmitted to all parties as draft. U.S. EPA and MDEQ may review the draft meeting summary and punch list and may provide comments that require Settling Defendant to revise the summary and/or punch list.

B. Performance of Remedial Action

Settling Defendant shall implement the remedial action(s) in accordance with the ROD, approved Remedial Design, and good engineering practices.

C. Prefinal inspection:

Within 14 days after Settling Defendant makes a preliminary determination that construction is complete, Settling Defendant shall notify the U.S. EPA and the State for the purposes of conducting a prefinal inspection. The prefinal inspection shall consist of a walk-through inspection of the Site with U.S. EPA, the Settling Defendant, and the State. The inspection is to determine whether the project is complete and consistent with the contract documents and the Remedial Action. Any outstanding construction items discovered during the inspection shall be identified and noted. Additionally, treatment equipment shall be operationally tested by the Settling Defendant. Settling Defendant shall certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting shall be completed where deficiencies are revealed. Settling Defendant shall prepare and submit to U.S. EPA a Prefinal Inspection Report (which can be in the form of a punch list or letter) to outline the outstanding construction items, actions required to resolve items, completion date for these items, and a proposed date for final inspection.

D. Final inspection:

Within 14 days after completion of any work identified in the prefinal inspection report, the Settling Defendant shall notify the U.S. EPA and the State for the purposes of conducting a final inspection. If a final inspection is deemed necessary by U.S. EPA, the final inspection shall consist of a walk-through inspection of the Site by U.S. EPA, the Settling Defendant, and the State. Settling Defendant shall prepare a Final Inspection Report that utilizes the prefinal inspection report and focuses on the resolution of the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

E. Reports

1. Final Construction Report

Within 30 days of a successful final inspection (or notification by U.S. EPA that a final inspection is not necessary), Settling Defendant shall submit a Construction Completion Report. In the report, a registered professional engineer and the Settling Defendant's Project Coordinator shall state that the Remedial Action has been constructed in accordance with the design and specifications. The written report shall include as-built drawings signed and stamped by a registered professional engineer. The report shall contain the following statement, signed by a responsible corporate official of the Settling Defendant or the Settling Defendant's Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Because the remedial action has two phases, a final construction report should be prepared after completion of Phase 1 construction activities (soil/waste excavation and AS/SVE system) and after completion of Phase 2 construction activities (groundwater extraction and treatment).

2. Completion of Remedial Action Report

If directed by U.S. EPA, this report shall be submitted by the Settling Defendant to document that construction is complete, performance standards have been attained, and OM&M requirements will continue to be performed. The Record of Decision for the Fetzer Site did not establish final groundwater cleanup standards; final groundwater cleanup standards will be established in a follow-up ROD to address site-wide groundwater. The Fetzer Site ROD established an interim goal of eliminating the Fetzer Site as a source for contamination to off-site groundwater. U.S. EPA may determine that, upon consideration of the interim groundwater approach as a containment-type remedy, submission of a Completion of Remedial Action Report is appropriate based on OM&M data that demonstrate successful control of groundwater contamination. Settling Defendant shall submit a Completion of Remedial Action Report within 60 days of receipt of a request by U.S. EPA.

In a Completion of Remedial Action Report, a registered professional engineer and the Settling Defendant's Project Coordinator shall state the Remedial Action has been completed in full satisfaction of the requirements of this Consent Decree. The written report shall include as-built drawings signed and stamped by a registered professional engineer. The report shall contain the following statement, signed by a responsible corporate official of the Settling Defendant or the Settling Defendant's Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

3. Completion of Work Report

This report shall be submitted by the Settling Defendant when performance standards have been attained and OM&M is no longer required. Within 30 days of U.S. EPA's approval of Settling Defendant's demonstration of consistent performance standard attainment, Settling Defendant shall submit a Completion of Work Report. In the report, a registered professional engineer and the Settling Defendant's Project Coordinator shall state the cleanup standards have been achieved in full satisfaction of the requirements of this Consent Decree and ROD. This may be submitted in two Phases: Phase 1, addressing standards for soils and soil vapor and Phase 2, addressing groundwater standards. The written report shall include as-built drawings signed and stamped by a registered professional engineer not previously submitted. The report shall contain the following statement, signed by a responsible corporate official of the Settling Defendant or the Settling Defendant's Project Coordinator:

"To the best of my knowledge, after thorough investigation, I certify that the information contained in or accompanying this submission is true, accurate and complete. I am aware

there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Task 5: Operation and Maintenance

Settling Defendant shall prepare an Operation, Maintenance and Monitoring (OM&M) Plan that will include both implementation and long-term maintenance of the Remedial Action. An initial Draft OM&M Plan for soils and soil vapor (Phase 1) and groundwater (Phase 2) shall be submitted as a Final Design document submission. The final OM&M Plan shall be submitted to U.S. EPA prior to the pre-final construction inspection, in accordance with the approved construction schedule.

The OM&M Plan need not duplicate information provided in an approved QAPP and Field Sampling Plan, and may instead reference a QAPP and Field Sampling Plan. While detailed duplication of information is not necessary, the OM&M plan must clearly outline the logic, media, timing and parameters of all monitoring programs for the long-term remedial action. The plan shall be composed of the following elements:

1. Description of normal operation and maintenance;
 - a. Description of tasks for operation;
 - b. Description of tasks for maintenance;
 - c. Description of prescribed treatment or operation conditions; and
 - d. Schedule showing frequency of each operation and maintenance task.
2. Description of potential operating problems;
 - a. Description and analysis of potential operation problems;
 - b. Sources of information regarding problems; and
 - c. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing;
 - a. Description of monitoring tasks;
 - b. Description of required data collection, laboratory tests and their interpretation;
 - c. Required quality assurance, and quality control;
 - d. Schedule of monitoring frequency and procedures for a petition to U.S. EPA to reduce the frequency of or discontinue monitoring;
 - e. Schedule of monitoring for demonstration of system conversion (SVE/AS to groundwater extraction and treatment) and final system shutdown; and
 - e. Description of verification sampling procedures if Cleanup or Performance Standards are exceeded in routine monitoring.
4. Description of alternate OM&M;
 - a. Should systems fail, alternate procedures to prevent release or threatened releases of hazardous substances, pollutants or contaminants which may endanger public health and the environment or exceed performance standards; and
 - b. Analysis of vulnerability and additional resource requirement should a

failure occur.

5. Corrective Action;
 - a. Description of corrective action to be implemented in the event that cleanup or performance standards are exceeded; and
 - b. Schedule for implementing these corrective actions.
6. Safety plan;
 - a. Description of precautions, of necessary equipment, etc., for Site personnel; and
 - b. Safety tasks required in event of systems failure.
7. Description of equipment; and
 - a. Equipment identification;
 - b. Installation of monitoring components;
 - c. Maintenance of Site equipment; and
 - d. Replacement schedule for equipment and installed components.
8. Records and reporting mechanisms required.
 - a. Daily operating logs;
 - b. Laboratory records;
 - c. Records for operating costs;
 - d. Mechanism for reporting emergencies;
 - e. Personnel and maintenance records; and
 - f. Monthly/annual reports to State agencies.

IV CONTENT OF SUPPORTING PLANS

The documents listed in this section -- the Quality Assurance Project Plan, the Field Sampling Plan, the Health and Safety Plan, the Contingency Plan and the Construction Quality Assurance Plan -- are documents which must be prepared and submitted as outlined in Section III of this SOW. The following section describes the required contents of each of these supporting plans.

A. Quality Assurance Project Plan

Settling Defendant shall develop a site-specific QAPP covering sample analysis and data handling for samples collected in all phases of future Site work, based upon the Unilateral Administrative Order and guidance provided by U.S. EPA. The QAPP shall be consistent with the requirements of the EPA Contract Lab Program (CLP) for laboratories proposed outside the CLP. The QAPP shall at a minimum include:

Project Description

- Fetzner Site Location History
- Past Data Collection Activity
- Project Scope
- Sample Network Design

- Parameters to be Tested and Frequency
- Project Schedule

Project Organization and Responsibility

Quality Assurance Objective for Measurement Data

- Level of Quality Control Effort
- Accuracy, Precision and Sensitivity of Analysis
- Completeness, Representativeness and Comparability

Sampling Procedures

Sample Custody

- Field Specific Custody Procedures
- Laboratory Chain of Custody Procedures

Calibration Procedures and Frequency

- Field Instruments/Equipment
- Laboratory Instruments

Analytical Procedures

- Non-Contract Laboratory Program Analytical Methods
- Field Screening and Analytical Protocol
- Laboratory Procedures

Internal Quality Control Checks

- Field Measurements
- Laboratory Analysis

Data Reduction, Validation, and Reporting

- Data Reduction
- Data Validation
- Data Reporting

Performance and System Audits

- Internal Audits of Field Activity
- Internal Laboratory Audit
- External Field Audit
- External Laboratory Audit

Preventive Maintenance

- Routine Preventative Maintenance Procedures and Schedules
- Field Instruments/Equipment
- Laboratory Instruments

Specific Routine Procedures to Assess Data Precision, Accuracy, and Completeness

- Field Measurement Data
- Laboratory Data

Corrective Action

- Sample Collection/Field Measurement
- Laboratory Analysis

Quality Assurance Reports to Management

Settling Defendant shall attend a pre-QAPP meeting with U.S. EPA. Settling Defendant shall submit a draft QAPP to U.S. EPA for review and approval, with a copy of the draft QAPP to be provided to MDEQ for review and possible comment.

B. Health and Safety Plan

Settling Defendant shall develop a health and safety plan which is designed to protect on-site personnel and area residents from physical, chemical and all other hazards posed by this remedial action. The safety plan shall develop the performance levels and criteria necessary to address the following areas.

Fetzer Site Description
Personnel
Levels of protection
Safe work practices and safe guards
Medical surveillance
Personal and environmental air monitoring
Personal protective equipment
Personal hygiene
Decontamination - personal and equipment
Site work zones
Contaminant control
Contingency and emergency planning
Logs, reports and record keeping

The safety plan shall follow U.S. EPA guidance and all OSHA requirements as outlined in 29CFR 1910 and 1926.

- C. Contingency Plan [may be submitted as part of the HASP or as a separate document] Settling Defendant shall submit a Contingency Plan describing procedures to be used in the event of an accident or emergency at the site. The draft Contingency Plan shall be submitted with the prefinal design and the [draft] final Contingency Plan shall be submitted with the final design. The final Contingency Plan shall be submitted prior to the start of construction, in accordance with the approved construction schedule. The Contingency Plan shall include, at a minimum, the following:

1. Name of the person or entity responsible for responding in the event of an emergency incident.
2. Plan and date(s) for meeting(s) with the local community, including local, State and Federal agencies involved in the cleanup, as well as local emergency squads and hospitals.
3. First aid medical information.
4. Air Monitoring Plan (if applicable).
5. Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), as specified in 40 CFR Part 109 describing measures to prevent and contingency plans for potential spills and discharges from materials handling and transportation.

D. Field Sampling Plan

Settling Defendant shall develop a Field Sampling Plan (as described in "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," October 1988). The Field Sampling Plan should supplement the QAPP and address all sample collection activities. Settling Defendant shall submit the draft Field Sampling Plan to U.S. EPA for review and approval, with a copy of the draft Field Sampling Plan to be provided to MDEQ for review and possible comment.

E. Construction Quality Assurance Plan

Settling Defendants shall submit a Construction Quality Assurance Plan (CQAP) which describes the Site specific components of the quality assurance program which shall ensure that the completed project meets or exceeds all design criteria, plans, and specifications. The draft CQAP shall be submitted with the prefinal design and the [draft] final CQAP shall be submitted with the final design. [The final CQAP shall be submitted prior to the start of construction in accordance with the approved construction schedule.] The CQAP shall contain, at a minimum, the following elements:

1. Responsibilities and authorities of all organizations and key personnel involved in the design and construction of the Remedial Action.
2. Qualifications of the Quality Assurance Official to demonstrate he possesses the training and experience necessary to fulfill his identified responsibilities.
3. Protocols for sampling and testing used to monitor construction.
4. Identification of proposed quality assurance sampling activities including the sample size, locations, frequency of testing, acceptance and rejection data sheets, problem identification and corrective measures reports, evaluation reports, acceptance reports,

and final documentation. A description of the provisions for final storage of all records consistent with the requirements of the Consent Decree shall be included.

5. Reporting requirements for CQA activities shall be described in detail in the CQA plan. This shall include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

V. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE

A summary of the project schedule and reporting requirements contained in this SOW is presented below:

	<u>Submission / Activity</u>	<u>Due Date</u>
1.	RD Work Plan	Sixty (60) days after Settling Defendant's lodging of the Consent Decree
2.	Preliminary Design (30%)	Thirty (30) days after U.S. EPA's approval of Final RD Work Plan
3.	Intermediate Design (60%)	Thirty (30) days after receipt of U.S. EPA's comments on the Preliminary Design
4.	Prefinal Design (95%)	Thirty (30) days after receipt of U.S. EPA's comments On the Intermediate Design
5.	Final Design (100%)	Thirty (30) days after receipt of U.S. EPA's comments On the Prefinal Design
6.	RA Work Plan	Thirty (30) days after receipt of U.S. EPA's Notice of Authorization to Proceed with RA
7.	Award RA Contract(s)	Thirty (30) days after receipt of U.S. EPA's Notice of Authorization to Proceed with RA
8.	Pre-Construction Inspection	15 days after and Meeting Award of RA contract(s)
9.	Initiate Construction of RA	15 days after Phase 1 Pre-Construction Inspection and meeting
10.	Completion of Construction	Schedule as approved by U.S. EPA in RA construction schedule
11.	Prefinal Inspection	No later than 15 days after completion of Phase 1

construction

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| 12. | Prefinal Inspection Report | 15 days after completion of prefinal inspection |
| 13. | Final Inspection | 15 days after completion of work identified in prefinal inspection report |
| 14. | Final OM&M Plan | No later than Prefinal Inspection |
| 15. | Construction Completion Report | 30 days after final inspection |
| 16. | Completion of Work Report | Thirty (30) days after receipt of U.S. EPA's approval of Settling Defendant's demonstration of consistent performance standard attainment |